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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,069	02/09/2005	Giovanna Girola	IT 020024	4431

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EXAMINER

TRAN, PABLO N

ART UNIT PAPER NUMBER

2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.		Applicant(s)	
	10/524,069		GIROLA ET AL	
	Examiner		Art Unit	
	Pablo N. Tran		2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/09/05</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhang et al. (6,999,432).

As per claims 1 and 10-12, Zhang et al. disclosed a method for transmitting packet data comprising a detector for detecting packet data to be transmitted, wherein in response to a detection result of a real-time requirement selecting a first coding scheme and a first modulation scheme for coding and modulating said packet data and for in response to a non-real-time requirement selecting a second coding scheme and a second modulation scheme for coding and modulating said packet data (col. 1/ln. 45-58, col. 7/ln. 59-col. 8/ln. 39, col. 9/ln. 45-51, col. 11/ln. 18-33).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (6,999,432) in view of Hartman, Jr. (7,016,296).

As per claim 2, Zhang et al. does not explicitly suggest such utilization of a convolutional code for the first coding scheme and an adaptive orthogonal frequency division modulation scheme and a turbo code for the second coding scheme and an orthogonal frequency division modulation scheme. Hartman, Jr. teaches such schemes (fig. 5A, fig. 5B, col. 1/ln. 61-col. 2/ln. 53, col. 5/ln. 29-46, col. 6/ln. 25-col. 7/ln. 17, col. 8/ln. 33-col. 9/ln. 29, col. 13/ln. 50-63, TABLE 2). Therefore, it would have been obvious to one of ordinary skill in the art to provide such coding/modulation schemes, as taught by Hartman, Jr., to the multi media wireless networks of Zhang et al. in order to select a coding/modulation schemes that continually adapts to the channel conditions to provide near optimal throughput for those channel conditions.

As per claim 3, the modified communication system of Zhang et al. and Hartman, Jr. further teach a target bit error rate and/or a payload bit rate (see Hartman, Jr., col. 1/ln. 61-col. 2/ln. 53, col. 5/ln. 29-46, col. 6/ln. 25-col. 7/ln. 17, col. 8/ln. 33-col. 9/ln. 29, col. 13/ln. 50-63, TABLE 2).

As per claim 4, the modified communication system of Zhang et al. and Hartman, Jr. further teach a detector for detecting channel conditions (see Hartman, Jr., col. 1/ln.

61-col. 2/ln. 53, col. 5/ln. 29-46, col. 6/ln. 25-col. 7/ln. 17, col. 8/ln. 33-col. 9/ln. 29, col. 13/ln. 50-63, TABLE 2).

As per claim 5, the modified communication system of Zhang et al. and Hartman, Jr. further teach a processor (see Hartman, Jr., col. 1/ln. 61-col. 2/ln. 53, col. 5/ln. 29-46, col. 6/ln. 25-col. 7/ln. 17, col. 8/ln. 33-col. 9/ln. 29, col. 13/ln. 50-63, TABLE 2).

As per claim 6, the modified communication system of Zhang et al. and Hartman, Jr. further teach a rate adaptive algorithm for evaluating a maximum available bit rate in dependence of said channel conditions (see Hartman, Jr., col. 1/ln. 61-col. 2/ln. 53, col. 5/ln. 29-46, col. 6/ln. 25-col. 7/ln. 17, col. 8/ln. 33-col. 9/ln. 29, col. 13/ln. 50-63, TABLE 2).

As per claim 7, the modified communication system of Zhang et al. and Hartman, Jr. further teach a margin adaptive algorithm for computing a bit loading in dependence of an actual bit rate (see Hartman, Jr., col. 1/ln. 61-col. 2/ln. 53, col. 5/ln. 29-46, col. 6/ln. 25-col. 7/ln. 17, col. 8/ln. 33-col. 9/ln. 29, col. 13/ln. 50-63, TABLE 2).

As per claim 8, the modified communication system of Zhang et al. and Hartman, Jr. further teach a code rate adapter for in response to a detection result of a real-time requirement and to a further detection result of a target bit error rate adapting a code rate for said computing (see Hartman, Jr., col. 1/ln. 61-col. 2/ln. 53, col. 5/ln. 29-46, col. 6/ln. 25-col. 7/ln. 17, col. 8/ln. 33-col. 9/ln. 29, col. 13/ln. 50-63, TABLE 2).

As per claim 9, the modified communication system of Zhang et al. and Hartman, Jr. further teach a generator for in response to a detection result of a non-real-time

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requirement and to a further detection result of a target bit error rate generating a code rate and/or a block length and/or a number of iterations and/or code parameters (see Hartman, Jr., col. 1/ln. 61-col. 2/ln. 53, col. 5/ln. 29-46, col. 6/ln. 25-col. 7/ln. 17, col. 8/ln. 33-col. 9/ln. 29, col. 13/ln. 50-63, TABLE 2).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pablo Tran whose telephone number is (571)272-7898. The examiner normal hours are 9:30 -5:00 (Monday-Friday). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571)272-7899. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) System. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-directauspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PABLO N. TRAN
PRIMARY EXAMINER

January 21, 2007



A02618